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EXAMINER	
PHAM, HOAI V	

ART UNIT	PAPER NUMBER
2892	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/809,118	NAKAMURA, OSAMU	
	Examiner	Art Unit	
	Hoai v. Pham	2892	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13 and 21-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 21-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 3-9, 11-13, and 21-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 3 and 6, the limitation "wherein the active layer and the gate interconnection are formed over the same insulating plane with the gate insulating film interposed between the active layer and the gate interconnection" is not described in the specification or shown in the figure.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant Admitted Prior Art (fig. 7, pages 2-3).

With respect to claims 1-2, Applicant Admitted Prior Art discloses a semiconductor device comprising:

a gate interconnection (705);

a source interconnection (707);

an (island-like) insulating film (706);

wherein the gate interconnection (705) and the source interconnection (707) are formed on a same insulating plane (701), in a first region, and

wherein the gate interconnection (705) and the source interconnection (707) are formed over the same insulating plane (701) with the (island-like) insulating film (706) interposed between the gate interconnection (705) and the source interconnection (707) in the second region.

With respect to claims 4-5, Applicant Admitted Prior Art (fig. 7) discloses that the island-like insulating film (706) is formed so as to cover the gate interconnection (705) in the second region, and wherein source interconnection (707) is formed over the island-like insulating film (706).

With respect to claims 3 and 6, as best understood, Applicant Admitted Prior Art discloses a semiconductor device comprising:

a gate interconnection (705);

a source interconnection (707);

an (island-like) insulating film (706);

an active layer;

gate insulating film (703);

wherein the gate interconnection (705) and the source interconnection (707) are formed on a same insulating plane (701), in a first region, and

wherein the gate interconnection (705) and the source interconnection (707) are formed over the same insulating plane (701) with the (island-like) insulating film (706) interposed between the gate interconnection (705) and the source interconnection (707) in the second region;

wherein the active layer and the gate interconnection (705) are formed over the same insulating plane (701) with the active layer between the gate insulating film (703) and the insulating plane (701), in the third region;

wherein a thin film transistor is formed in the third region; and

wherein the active layer and the source interconnection (707) is directly connected in the third region.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 8-11 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (fig. 7, pages 2-3).

With respect to claims 8-11, Applicant Admitted Prior Art discloses all the limitation as claimed above except the limitation of discharging a solution containing metal particles or discharging a solution containing an insulating material. However, the process limitation "discharging a solution containing metal particles" do not carry weight in a claim drawn to structure. *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985). In addition, a "product by process" limitation is directed to the product per se, no matter how actually made, in re Hirao, 190 USPQ 15 and 17 (footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wertheim*, 191 USPQ 90; and *In re Marosi et al.*, 218 USPQ 289; all of which made clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product by a new method is not patentable as a product, whether claimed in "product by process" claims or not.

With respect to claims 21-25, the limitation "a display device; a digital still camera; a personal computer; a mobile computer or an image reproducing system" simply specifies an intended use or field of use and is not given patentable weight. It is noted that, the intended use in this device claim does not result in a structure difference between the claim invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior structure is capable of performing the intended use, then it meets the claim. *Ex parte Masham, 2 USPQ2d 1647 (1987).*

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (fig. 7, pages 2-3) in view of Nakajima [US 6,420,758].

Applicant Admitted Prior Art substantially discloses all the limitation as claimed above except the active layer comprises a microcrystalline semiconductor. However, Nakajima discloses that the microcrystalline semiconductor and their uses are well-known in the art for forming the active layer (see col. 7, lines 13-19). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to select the microcrystalline semiconductor as known materials, as taught by Nakajima, into the device of the Applicant Admitted Prior Art to form the active layer. Moreover, selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in Sinclair & Carroll Co., Inc. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945).

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (fig. 7, pages 2-3) in view of Matsuura et al. [US 7,034,339].

Applicant Admitted Prior Art substantially discloses all the limitation as claimed above except the active layer comprises an organic semiconductor. However, Matsuura et al. discloses that the organic semiconductor and their uses are well-known in the art for forming the active layer (44) (see col. 11, lines 18-22). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to select the organic semiconductor as known materials, as taught by Matsuura et al., into

the device of the Applicant Admitted Prior Art to form the active layer. Moreover, selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in Sinclair & Carroll Co., Inc. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945).

Response to Arguments

8. Applicant's arguments filed 07/24/2008 have been fully considered but they are not persuasive.

Applicant argues that Applicant Admitted Prior Art does not disclose or suggest "wherein the gate interconnection and the source interconnection are formed on a same insulating plane, in a first region." Hence, the gate interconnection and the source interconnection are in contact with (i.e. on) the same insulating plane, in the first region.

Applicant's argument is not persuasive because Applicant Admitted Prior Art clearly discloses that the gate interconnection (705) and the source interconnection (707) are formed on a same insulating plane (701), in a first region (see fig. 7). There is no basic for the argument "the gate interconnection and the source interconnection are in contact with (i.e. on) the same insulating plane, in the first region".

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

10. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoai v. Pham whose telephone number is 571-272-1715. The examiner can normally be reached on M-F.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thao Xuan Le can be reached on 571-272-1708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hoai v Pham/

Primary Examiner, Art Unit 2892